WHAT IS CLAIMED IS:

1. A method for displaying an undistorted, projector image on a surface of unknown geometry, comprising:

capturing an image of the surface from the point of view of an observer;

establishing a mapping between pixels of the captured image and pixels of the projector image;

displaying the target image on the surface, said display of the target image comprising correcting the target image in relation to the established mapping to display on the surface corresponding to the target image from the point of view of the observer.

2. A method of allowing at least one projector to display an undistorted, target image on a surface of unknown geometry, comprising:

capturing, by means of a camera, an image of the surface from the point of view of an observer;

establishing a mapping between pixels of the image from the camera and pixels of a projector image;

projecting the target image on the surface using the projector, said projection of the target image comprising correcting the target image in relation to the established mapping to display on the surface a target image undistorted from the point of view of the observer.

3. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 2, wherein:

establishing a mapping comprises establishing a mapping between each pixel of the projector image and each pixel of the camera image.

4. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 3, wherein:

establishing a mapping comprises establishing an inverse mapping from pixels of the projector image to pixels of the camera image; and

said method comprises constructing the projector image on the basis of the inverse mapping.

5. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 2, wherein:

establishing a mapping comprises projecting, by means of said at least one projector, at least one pattern on the surface; said at least one pattern providing an encoding of the pixel position of the projector image.

6. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 5, wherein:

the projected pattern comprises alternate black and white stripes.

7. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 2, wherein:

a plurality of projectors are used in projecting the target image on the surface.

8. A system for allowing at least one projector to display an undistorted, target image on a surface of unknown geometry, comprising:

a camera for capturing an image of the surface from the point of view of an observer;

a producer of a mapping between pixels of the camera image and pixels of a projector image;

said at least one projector for projecting the target image on the surface using the projector, said system comprising a corrector of the target image projected by the at least one projector in relation to the established mapping to display on the surface a target image undistorted from the point of view of the observer.

9. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 8, wherein the camera is a digital still camera or a digital video camera.

10. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 8, wherein the projector is selected from the group consisting of a digital video projector, a laser point projector or a laser stripe projector.

11. A system for allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 8, wherein:

the mapping producer establishes a mapping from each pixel of the projector image to a pixel of the camera image.

12. A system for allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 11, wherein:

the mapping producer establishes an inverse mapping from pixels of the projector image to pixels of the camera image; and

said system comprises a producer of the projector image on the basis of the inverse mapping.

13. A system for allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 8, wherein, when the camera captures an image of the surface, the at least one projector projects a pattern on the surface.

14. A system for allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 13, wherein:

the projected pattern comprises alternate black and white stripes.

15. A system for allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 8, comprising a plurality of projectors to project the target image on the surface.

16. A method of allowing a projector to display an undistorted, target image on a surface of unknown geometry as defined in claim 2, wherein at least one of said camera and said projector is uncalibrated with respect to the surface and the other of said projector and said camera.

17. A method for displaying an undistorted, target image on a surface of unknown geometry, comprising:

capturing an image of the surface from the point of view of an observer;

establishing a mapping between pixels of the captured image and pixels of the target image, taking into consideration respective positions of the observer and surface;

displaying the target image on the surface, said display of the target image comprising correcting the target image in relation to the established mapping to display on the surface a target image undistorted from the point of view of the observer.